

ART 4.5.4 Supply Mobile Electric Power

Supply electric power generation and distribution to military units through mobile generation and a tactical distribution grid system. ART 4.1.6.4 includes power production, power distribution, and power management.

NO.	Scale	Measure
01	Yes/No	Mobile electric power met users needs.
02	Yes/No	Electrical system constructed and power generation and regulation devices installed per operation order specifications and within the time the directive stated.
03	Yes/No	Mobile electric power systems adhered to local and national electric code specifications.
04	Yes/No	Environmental considerations planning and procedures were present and being followed.
05	Time	To refine mobile electric power service program for AO after receipt of warning order.
06	Time	To prepare engineer construction estimate that determines the effort needed to meet the requirements, assign operational and construction responsibilities, and determine additional personnel and equipment requirements.
07	Time	To perform reconnaissance to evaluate the site for suitability and conditions, identify construction problems and possible courses of action, and update or revise the engineer estimate.
08	Time	To prepare construction directive for a facility to house mobile electric power generators, power grid substations or transformers, and electric power lines and issue it to the construction unit. This directive states the exact assignment, project location, and start and completion times; specifies additional personnel, equipment, and materials available; prioritizes the entire project; and specifies type and frequency of construction reports, time needed for special procurement, and coordination instructions with user agency.
09	Time	To coordinate for and receive engineer assets to

		perform task.
10	Time	To monitor construction and perform quality assurance inspections.
11	Time	To perform location survey to establish permanent benchmarks for vertical control and well-marked points for horizontal control.
12	Time	To perform construction layout survey.
13	Time	To verify accuracy of construction plans and specifications to include ensuring the bill of materials includes all required materials to complete construction.
14	Time	To rough in the structure to accommodate electrical service.
15	Time	To install cable and conduit.
16	Time	To complete installation by connecting joints; grounding system at service entrance; connecting bonding circuit; attaching wire to switch terminal, ceiling and wall outlets, fixtures, and devices; and connecting service entrance cable and fusing or circuit breaker panels.
17	Time	To test and repair the system.
18	Percent	Difference between planned mobile electric power requirements and actual requirements in the AO.
19	Percent	Of planned mobile electric power generation and distribution capability gained in the AO.
20	Percent	Of units in AO that require mobile generation power.
21	Percent	Of electrical power in AO generated by mobile generation units and distributed through a tactical grid.
22	Percent	Of electrical power in AO provided by existing power generation facilities and distributed through a commercial grid.
23	Percent	Of power generation systems operational.
24	Percent	Of required kilowatt hours provided by mobile generation units.
25	Percent	Of power provided in the AO that meets voltage, frequency, and amperage standards.
26	Number	And types of mobile generation systems required meeting user requirements.
27	Number	Of kilometers of electric power lines that form the tactical grid in the AO.
28	Number	Of substations and transformers required by the tactical

	grid.
--	-------

Supporting Collective Tasks:

Task No.	Title	Proponent	Echelon
05-3-5700	Install Nonstandard Low-Voltage, Electrical-Power Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5701	Install Low-Voltage, Electrical-Power Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5702	Install Underground Electrical-Power Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5704	Perform Nonorganic Equipment Power Distribution Maintenance Operations	05 - Engineers (Collective)	Platoon
05-3-5705	Retrieve Electrical-Power Generation and Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5707	Perform Nonorganic Power Generation System Maintenance Operations	05 - Engineers (Collective)	Platoon
05-3-5709	Perform a Power Plant Installation Survey	05 - Engineers (Collective)	Platoon
05-3-5711	Perform a Power Plant Operations Survey	05 - Engineers (Collective)	Platoon
05-3-5712	Perform a Power Plant Maintenance Survey	05 - Engineers (Collective)	Platoon
05-3-5713	Perform a Power Distribution System Maintenance Survey	05 - Engineers (Collective)	Platoon
05-3-5715	Perform Power Plant Design Technical Assistance	05 - Engineers (Collective)	Platoon

05-3-5716	Perform Power Plant Installation Technical Assistance	05 - Engineers (Collective)	Platoon
05-3-5717	Perform Power Plant Distribution System Design Technical Assistance	05 - Engineers (Collective)	Platoon
05-3-5719	Perform Power Plant Generation System Maintenance Technical Assistance	05 - Engineers (Collective)	Platoon
05-3-5720	Select a Temporary Power Plant Site	05 - Engineers (Collective)	Platoon
05-3-5722	Prepare Power Systems Construction Estimates	05 - Engineers (Collective)	Platoon
05-3-5723	Install Prime Power Generation Equipment	05 - Engineers (Collective)	Platoon
05-3-5724	Install Expedient, Surface-Laid, Electrical-Power Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5727	Install Underground Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5728	Assess Power Generation Systems for Damage	05 - Engineers (Collective)	Platoon
05-3-5729	Operate Power Generation and Distribution Equipment	05 - Engineers (Collective)	Platoon
05-3-5730	Perform Electrical-Power Generation Equipment Organizational Maintenance Operations	05 - Engineers (Collective)	Platoon
05-3-5731	Perform Electrical-Power, Distribution Equipment Organizational Maintenance Operations	05 - Engineers (Collective)	Platoon
05-3-5732	Conduct Electrical-Power Generation Equipment Intermediate Maintenance Operations	05 - Engineers (Collective)	Platoon

05-3-5733	Perform Power Plant and Distribution Equipment Shipment	05 - Engineers (Collective)	Platoon
43-2-7035	Provide Tactical Electric Power	43 - Maintenance (except missile) (Collective)	Company